## REMARKS

Claims 1-38 are pending in the present application. Claims 1, 10, 12, 22, 23, 32, 34, 37, and 38 are amended. Reconsideration of the claims is respectfully requested.


I. **35 U.S.C. § 102, Anticipation**

The Office Action rejects claims 1-38 under 35 U.S.C. § 102 as being anticipated by Godse (US Patent No. 6,202,091). This rejection is respectfully traversed.

Godse teaches a process and apparatus for initializing a computer from power up. A boot ROM directs the stages in the booting process and a policy governing each of these stages is laid out in a policy file. In Godse, a boot-up procedure includes a boot element for initiating one stage of the boot-up process and a data structure including pointers to a location containing information elements for the remaining stages. See Godse, col. 1, line 66, to col. 2, line 14. The boot element that initiates the boot-up process and sends information about the policy file to a remote reference site. The "vintage" of the policy file is determined at the remote reference site. If the policy file is up-to-date, the remote reference site notifies the boot element, which uses the policy file to complete the execution of the boot-up procedure. However, if the policy file is no longer up-to-date and a newer version exists, the reference center transmits the new file to the boot initiation element to replace the old file. See Godse, col. 4, lines 17-42.

Thus, Godse teaches a fixed boot element that initiates the boot-up process and updateable files that are used to continue the boot-up process. In Godse, the boot element itself is never updated. Furthermore, the boot element does not perform the update process. Rather, a remote reference center determines whether files are up-to-date and transmits new versions of out-of-date files.

In contradistinction, claim 1, as amended, recites:

1.      A method for updating a current boot code in a data processing
system in which the current boot code is used to load an operating system,
the method comprising the data processing system implemented steps of:
        loading a current boot code from a non-volatile memory;
        initiating a boot sequence using the current boot code;
        searching a storage device for an updated boot code for the
operating system in response to initiating the boot sequence; and

updating the current boot code in the non-volatile memory prior to loading the operating system for the data processing system if the updated boot code is present.

The present invention updates the boot code that is used to initiate the boot sequence. Godse does not teach or suggest this feature. Instead, Godse teaches that a remote reference center determines whether an updated file other than the boot code is a later version of the file at the data processing system and sends the updated file to the data processing system. The cited portion of Godse states:

> Under an example embodying this particular aspect of this invention, the boot initiation element is capable of verifying the vintage of any one of the files that direct the execution of the boot-up procedure, namely the policy file, the software download file, the software initialization file and the datafill file.

Godse, col. 4, lines 27-32. However, Godse goes on to state the following:

> In short, the verification procedure involves the steps of communicating any suitable characteristic of the file such as its date of creation or its date at which it was last modified to a remote reference site, such as a node in the network. If the file is up to date, the reference site notifies the boot initiation element accordingly, and the latter utilizes the file contents to complete the execution of the boot-up procedure. On the other hand, if the file is no longer up to date, and a new file exists, the reference center then transmits the new file to the boot initiation element that replaces the old file by the new one.

Godse, col. 4, lines 32-42. Thus, only files that direct execution, and not the boot code itself, are updated. Furthermore, the search for files and comparison vintage dates are performed at a remote location, rather than at the data processing system by the boot code itself. The applied prior art fails to teach or suggest each and every claim limitation; therefore, claim 1 is not anticipated by Godse.

Furthermore, Godse does not teach, suggest, or give any incentive to make the needed changes to reach the presently claimed invention. Godse actually teaches away from the presently claimed invention because it teaches a fixed boot element that is never updated, as opposed to updating the boot code that is used to initiate the boot sequence, as in the presently claimed invention. Absent the Office Action pointing out some

teaching or incentive to implement Godse to update the boot element, one of ordinary skill in the art would not be led to modify Godse to reach the present invention when the reference is examined as a whole. Absent some teaching, suggestion, or incentive to modify Godse in this manner, the presently claimed invention can be reached only through an improper use of hindsight using the Applicant's disclosure as a template to make the necessary changes to reach the claimed invention.

Independent claims 23 and 37 recite subject matter addressed above with respect to claim 1 and are allowable for the same reasons. Since claims 2-9 and 24-31 depend from claims 1 and 23, the same distinctions between Godse and the invention recited in claims 1 and 23 apply for these claims. Additionally, claims 2-9 and 24-31 recite other additional combinations of features not suggested by the reference. Consequently, it is respectfully urged that the rejection of claims 1-9, 23-31, and 37 is overcome.

Furthermore, Godse teaches that a remote reference center determines whether files are out of date. The present invention does not require communication with a remote reference center. Claim 10, as amended, recites:

> 10.    A method in a data processing system for loading an operating system using a boot code, the method comprising:
> loading a current boot code;
> searching, by the current boot code, for an updated boot code prior to loading the operating system;
> determining, by the current boot code, whether the updated boot code is a later version of the current boot code; and
> updating the current boot code using the updated boot code responsive to the updated boot code being a later version of the current boot code.
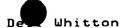
The present invention teaches a boot code that performs the function of updating itself. The boot code searches for an updated boot code prior to loading the operating system and determines whether the updated boot code is a later version of the current boot code. Godse does not teach or suggest this feature. Instead, Godse teaches that a remote reference center performs the search and determination functions. The applied prior art fails to teach or suggest each and every claim limitation; therefore, claim 10 is not anticipated by Godse.

Furthermore, Godse does not teach, suggest, or give any incentive to make the needed changes to reach the presently claimed invention. Godse actually teaches away

from the presently claimed invention because it teaches a remote reference site, as opposed to boot code that performs updating functions itself, as in the presently claimed invention. Absent the Office Action pointing out some teaching or incentive to implement Godse to have the boot element perform updating functions, one of ordinary skill in the art would not be led to modify Godse to reach the present invention when the reference is examined as a whole. Absent some teaching, suggestion, or incentive to modify Godse in this manner, the presently claimed invention can be reached only through an improper use of hindsight using the Applicant's disclosure as a template to make the necessary changes to reach the claimed invention.

Independent claims 32 and 38 recite subject matter addressed above with respect to claim 10 and are allowable for the same reasons. Since claims 11-14 and 33-36 depend from claims 10 and 32, the same distinctions between Godse and the invention recited in claims 10 and 32 apply for these claims. Additionally, claims 11-14 and 33-36 recite other additional combinations of features not suggested by the reference. Consequently, it is respectfully urged that the rejection of claims 10-14, 32-36, and 38 is overcome.

In addition, unamended claim 15 recites a processor unit that executes boot code instructions to determine whether updated boot code instructions are present. More particularly, claim 15 recites:

> 15.     A data processing system comprising:
> a bus;
> a first storage device connected to the bus, wherein the first storage device includes current boot code instructions;
> a second storage device connected to the bus, wherein an operating system is located on the second storage device; and
> a processor unit connected to the bus, wherein the processor unit executes the current boot code instructions check to determine whether updated boot code instructions are present in the second storage device, updates the current boot code instructions using the updated boot code instructions to form an updated set of boot code instructions if the updated boot code instructions are present on the second storage device, reinitializes the data processing system using the updated set of boot code instructions if the current boot code instructions are updated, and loads the operating system using the updated set of boot code instructions.

Thus, the data processing system of the present invention recited in claim 15 comprises a processor unit that executes boot code to perform update functions at the data processing system. The processor also reinitializes the data processing system using the updated set of boot code instructions and loads an operating system using the updated set of boot code instructions. This is in contrast to the Godse system that requires a remote reference site to perform the update functions and updates only supporting files, rather than the boot element itself. The applied prior art fails to teach or suggest each and every claim limitation; therefore, claim 15 is not anticipated by Godse.

Since claims 16-22 depend from claim 15, the same distinctions between Godse and the invention recited in claim 15 apply for these claims. Additionally, claims 16-22 recite other additional combinations of features not suggested by the reference. Consequently, it is respectfully urged that the rejection of claims 15-22 is overcome.

Therefore, the rejection of claims 1-38 under 35 U.S.C. § 102 is overcome.

## II.    Conclusion

It is respectfully urged that the subject application is patentable over Godse and is now in condition for allowance.

The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

DATE: _Jan 22, 2003_

Respectfully submitted,

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# APPENDIX OF REDACTED CLAIMS

Please amend claims 1, 10, 12, 22, 23, 32, 34, 37, and 38 as follows:

1. (Amended) A method for updating a current boot code in a data processing system in which the current boot code is used to load an operating system [from a storage device], the method comprising the data processing system implemented steps of:

    loading a current boot code from a non-volatile memory;

    initiating a boot sequence using the current boot code;

    searching [the] a storage device for an updated boot code for the operating system in response to [starting] initiating the [data processing system] boot sequence; and

    updating the current boot code in the non-volatile memory prior to loading the operating system for the data processing system if the updated boot code is present.


10. (Amended) A method in a data processing system for loading an operating system using a boot code, the method comprising:

    loading a current boot code;

    searching, by the current boot code, for an updated boot code prior to loading the operating system;

    determining, by the current boot code, whether the updated boot code is a later version of the current boot code; and

    updating the current boot code using the updated boot code [if] responsive to the updated boot code [is present] being a later version of the current boot code.


12. (Amended) The method of claim [10] 11, wherein the local storage device contains the operating system.


22. (Amended) The data processing system of claim 15, wherein the data processing system is one of a laptop computer, a palmtop computer, a personal computer, and a personal digital assistant.

23. (Amended) A data processing system for updating a current boot code in which the current boot code is used to load an operating system [from a storage device], the data processing system comprising:

loading means for loading a current boot code from a non-volatile memory;

initiating means for initiating a boot sequence using the current boot code;

searching means for searching [the] a storage device for an updated boot code for the operating system in response to [starting] initiating the [data processing system] boot sequence; and

updating means for updating the current boot code in the non-volatile memory prior to loading the operating system for the data processing system if the updated boot code is present.

32. (Amended) A data processing system for loading an operating system using a boot code, the data processing system comprising:

loading a current boot code;

searching means for searching, by the current boot code, for an updated boot code prior to loading the operating system;

determining means for determining, by the current boot code, whether the updated boot code is a later version of the current boot code; and

updating means for updating the current boot code using the updated boot code [if] responsive to the updated boot code [is present] being a later version of the current boot code.

34. (Amended) The data processing system of claim [32] 33, wherein the local storage device contains the operating system.

37. (Amended) A computer program product in a computer readable medium for updating a current boot code in a data processing system in which the current boot code is used to load an operating system [from a storage device], the computer program product comprising:

first instructions for loading a current boot code from a non-volatile memory;

second instructions for initiating a boot sequence using the current boot code;

[first] third instructions for searching [the] a storage device for an updated boot code for the operating system in response to [starting] initiating the [data processing system] boot sequence; and

[second] fourth instructions for updating the current boot code in the non-volatile memory prior to loading the operating system for the data processing system if the updated boot code is present.

38. (Amended) A computer program product in a computer readable medium for loading an operating system using a boot code, the computer program product comprising:

first instructions for loading a current boot code;

[first] second instructions for searching, by the current boot code, for an updated boot code prior to loading the operating system;

third instructions for determining, by the current boot code, whether the updated boot code is a later version of the current boot code;

[second] fourth instructions for updating the current boot code using the updated boot code [if] responsive to the updated boot code [is present] being a later version of the current boot code.